



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

(An Autonomous Institute under Kakatiya University, Warangal)

(Approved by AICTE, New Delhi; Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)

Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506 015, Telangana, INDIA.

కాకతీయ ప్రేఘోగికీ ంవ విజ్ఞాన సంస్థాన, వరంగల - 506 015

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - 506 015

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

B.Tech - COMPUTER SCIENCE AND ENGINEERING

URR-18

(Applicable from the Academic Year 2018-19)

SYLLABI (III to VI SEMESTERS)



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE:: WARANGAL – 15
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SCHEME OF INSTRUCTION & EVALUATION
III-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAM

[6Th+3P+1MC]

S.No	Category	Course Code	Course Title	Periods/week			Credits	Evaluation scheme				
				L	T	P		C	CIE			ESE
							TA		MSE	Total		
1	BSC	U18MH301	Engineering Mathematics - III	3	1	-	4	10	30	40	60	100
2	HSMC	U18MH302	Professional English	-	-	2	1	100	-	100	-	100
3	PCC	U18CS303	Object Oriented Programming through JAVA	3	1	-	4	10	30	40	60	100
4	BSC	U18MH304	Discrete Mathematics	3	-	-	3	10	30	40	60	100
5	PCC	U18CS305	Computer Architecture and Organization	3	-	-	3	10	30	40	60	100
6	PCC	U18CS306	Advanced Data Structures	3	-	-	3	10	30	40	60	100
7	ESC	U18EI309	Digital Electronics	3	-	-	3	10	30	40	60	100
8	PCC	U18CS310	Object Oriented Programming through Java Lab	-	-	2	1	40	-	40	60	100
9	PCC	U18CS311	Advanced Data Structures Lab	-	-	2	1	40	-	40	60	100
10	MC	U18MH315	Essence of Indian Traditional Knowledge	2	-	-	-	10	30	40	60	100
Total:				20	2	6	23	250	210	460	540	1000

[L= Lecture, T = Tutorials, P = Practical & C=Credits]

Total Contact Periods/Week: 28

Total Credits: 23

Stream-I: ME, CSE, IT, CSN, CSE (IOT)

Stream-II: CE, EIE, EEE, ECE, ECI, CSE (AI&ML)



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SCHEME OF INSTRUCTION & EVALUATION
 IV SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAM

Sl No	Category	Course Code	Course Title	Periods/week			Credits C	Evaluation scheme				
				L	T	P		CIE			ESE	Total Marks
								TA	MSE	Total		
1	OE	U18OE401	Open Elective-II	3	1	-	4	10	30	40	60	100
2	HSMC	U18TP402	Soft and Inter Personal Skills	-	-	2	1	100	-	100	-	100
3	OE	U18OE403	Open Elective-I	3	-	-	3	10	30	40	60	100
4	PCC	U18CS404	Theory of Computation	3	-	-	3	10	30	40	60	100
5	PCC	U18CS405	Database Management Systems	3	1	-	4	10	30	40	60	100
6	PCC	U18CS406	Operating Systems	3	-	-	3	10	30	40	60	100
7	PCC	U18CS407	Database Management Systems Lab	-	-	2	1	40	-	40	60	100
8	PCC	U18CS408	Operating Systems Lab	-	-	2	1	40	-	40	60	100
9	OE	U18OE411	Open Elective-I based lab	-	-	2	1	40	-	40	60	100
Total:				17	2	8	21	280	180	460	540	1000
10	MC	U18CH416	Environmental Studies*	2	-	-	-	10	30	40	60	100

L= Lecture, T = Tutorials, P = Practicals& C=Credits]

Open Elective-I: U18OE403A: Object Oriented Programming (CSE) U18OE403B: Fluid Mechanics & Hydraulic Machines (CE) U18OE403C: Mechatronics (ME) U18OE403D: Web Programming (IT) U18OE403E: Microprocessors (ECE) U18OE403F: Strength of Materials (ME)	Open Elective-II: U18OE401A: Applicable Mathematics (MH) U18OE401B: Basic Electronics Engineering (ECE) U18OE401C: Elements of Mechanical Engineering (ME) U18OE401D: Measurements & Instrumentation (EIE) U18OE401E: Fundamentals of Computer Networks (IT) U18OE401F: Renewable Energy Sources (EEE)	Open Elective-I based Lab: U18OE411A: Object Oriented Programming Lab (CSE) U18OE411B: Fluid Mechanics & Hydraulic Machines Lab (CE) U18OE411C: Mechatronics Lab (ME) U18OE411D: Web Programming Lab (IT) U18OE411E: Microprocessors Lab (ECE) U18OE411F: Strength of Materials Lab (CE)
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**SCHEME OF INSTRUCTION & EVALUATION
V- SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAM**

[6Th+3P+Seminar]

Sl. No	Category	Course Code	Course Title	Periods/week			Credits	Evaluation scheme				
				L	T	P		C	CIE			ESE
							TA		MSE	Total		
1	HSMC	U18TP501	Quantitative Aptitude & Logical Reasoning	2	-	-	1	10	30	40	60	100
2	PE	U18CS502	Professional Elective - I / MOOC-I	3	-	-	3	10	30	40	60	100
3	PCC	U18CS503	Computer Networks	3	1	-	4	10	30	40	60	100
4	PCC	U18CS504	Software Engineering	3	-	-	3	10	30	40	60	100
5	PCC	U18CS505	Compiler Design	3	-	-	3	10	30	40	60	100
6	PCC	U18CS506	Python Programming	3	-	-	3	10	30	40	60	100
7	PCC	U18CS507	Advanced Java Programming Lab	-	-	2	1	40	-	40	60	100
8	PCC	U18CS508	Compiler Design Lab	-	-	2	1	40	-	40	60	100
9	PCC	U18CS509	Python Programming Lab	-	-	2	1	40	-	40	60	100
10	PROJ	U18CS510	Seminar	-	-	2	1	100	-	100	-	100
Total:				17	1	8	21	280	180	460	540	1000
<i>Additional Learning*: Maximum credits allowed for Honours/Minor</i>				-	-	-	7	-	-	-	-	-
<i>Total credits for Honours/Minor students:</i>				-	-	-	21+7	-	-	-	-	-

* List of courses for additional learning through MOOCs towards Honours/Minor in Engineering shall be prescribed by the department under Honours/Minor Curricula

[L= Lecture, T = Tutorials, P = Practicals & C = Credits] Total Contact Periods/Week : 26

Total Credits : 21

Professional Elective-I / MOOC-I: U18CS502A: Artificial Intelligence U18CS502B: Computer Graphics and Multimedia U18CS502C: Advanced Database Management System U18CS502M: MOOCs course
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SCHEME OF INSTRUCTION & EVALUATION
VI- SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAM

[6Th+3P+1MC+Miniproject]

Sl. No	Category	Course Code	Course Title	Periods/week			Credits	Evaluation scheme				
				L	T	P		C	CIE			ESE
							TA		MSE	Total		
1	MC	U18MH601	Universal Human Values -II	2	1	-	-	10	30	40	60	100
2	OE	U18OE602	Open Elective - III	3	-	-	3	10	30	40	60	100
3	PE	U18CS603	Professional Elective - II / MOOC-II	3	-	-	3	10	30	40	60	100
4	PCC	U18CS604	Design and Analysis of Algorithms	3	-	-	3	10	30	40	60	100
5	PCC	U18CS605	Data Warehousing and Data Mining	3	-	-	3	10	30	40	60	100
6	PCC	U18CS606	Internet of Things	3	-	-	3	10	30	40	60	100
7	PCC	U18CS607	Design and Analysis of Algorithms Laboratory	-	-	2	1	40	-	40	60	100
8	PCC	U18CS608	Data Analytics Laboratory	-	-	2	1	40	-	40	60	100
9	PCC	U18CS609	Internet of Things Laboratory	-	-	2	1	40	-	40	60	100
10	PROJ	U18CS610	Mini Project	-	-	2	1	100	-	100	-	100
Total:				17	-	8	19	280	180	460	540	1000
Additional Learning *:Maximum credits allowed for Honours/Minor				-	-	-	7	-	-	-	-	-
Total credits for Honours/Minor students:				-	-	-	19+7	-	-	-	-	-

* List of courses for additional learning through MOOCs towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula
[L= Lecture, T = Tutorials, P = Practicals& C = Credits] Total Contact Periods/Week: 25 Total Credits: 19

Open Elective-III:

U18OE602A: Disaster Management
U18OE602B: Project Management
U18xOE602C: Professional Ethics in Engineering
U18OE602D: Rural Technology and Community Development

Professional Elective-II / MOOC-II:

U18CS603A: Cryptography and Network Security
U18CS603B: Digital Image processing
U18CS603C: Software Testing Methodologies
U18CS603M: MOOCs Course



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SCHEME OF INSTRUCTION & EVALUATION
VII - SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAM

[4Th+2P+ MP-I+ internship]

Sl. No	Category	Course Code	Course Title	Periods/week			Credits	Evaluation scheme				
				L	T	P		C	CIE			ESE
							TA		MSE	Total		
1	HSMC	U18MH701	Management Economics and Accountancy	3	-	-	3	10	30	40	60	100
2	PE	U18CS702	Professional Elective - III / MOOC-III	3	-	-	3	10	30	40	60	100
3	PE	U18CS703	Professional Elective - IV / MOOC-IV	3	-	-	3	10	30	40	60	100
4	PCC	U18CS704	Cloud Computing	3	-	-	3	10	30	40	60	100
5	PCC	U18CS705	Cloud Computing Lab	-	-	2	1	40	-	40	60	100
6	PCC	U18CS706	CASE Tools Lab	-	-	2	1	40	-	40	60	100
7	PROJ	U18CS707	Major Project - Phase - I	-	-	6	3	100	-	100	-	100
8	MC	U18CS708	Internship Evaluation	-	-	2	-	-	-	-	-	-
Total:				12	-	12	17	220	120	340	360	700
Additional Learning *:Maximum credits allowed for Honours/Minor				-	-	-	7	-	-	-	-	-
Total credits for Honours/Minor students:				-	-	-	17+7	-	-	-	-	-

* List of courses for additional learning through **MOOCs** towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula

[L= Lecture, T = Tutorials, P = Practicals & C = Credits]

Total Contact Periods/Week: 24

Total Credits: 17

Professional Elective-III / MOOC-III: U18CS702A: Machine Learning U18CS702B: High Performance Computing U18CS702C: Mobile Computing U18CS702M: MOOCs course	Professional Elective-IV / MOOC-IV: U18CS703A: User Experience Design U18CS703B: Big Data Analytics U18CS703C: Cyber Security and Digital Forensic U18CS703M: MOOCs course
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*Note: An Android course with at least 2-weeks duration must be done by students and should submit course completion certificate



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VIII- SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAM

[3Th+1P+ MP-II]

Sl. No	Category	Course Code	Course Title	Periods/week			Credits	Evaluation scheme				
				L	T	P		C	CIE			ESE
							TA		MSE	Total		
1	PE	U18CS801	Professional Elective - V / MOOC - V	3	-	-	3	10	30	40	60	100
2	PE	U18CS802	Professional Elective - VI / MOOC - VI	3	-	-	3	10	30	40	60	100
3	OE	U18OE803	Open Elective - IV / MOOC-VII	3	-	-	3	10	30	40	60	100
4	PROJ	U18CS804	Major Project - Phase - II	-	-	14	7	60	-	60	40	100
5	PCC	U18CS805	Mobile Application Development Laboratory	-	-	-	-	-	-	-	-	-
Total:				9	-	14	16	90	90	180	220	400
<i>Additional Learning*:Maximum credits allowed for Honours/Minor</i>				-	-	-	7	-	-	-	-	-
Total credits for Honours/Minor students:				-	-	-	16+7	-	-	-	-	-

* List of courses for additional learning through **MOOCs** towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula

[L= Lecture, T = Tutorials, P = Practical & C = Credits]

Total Contact Periods/Week: 23

Total Credits: 16

Professional Elective-V / MOOC-V: U18CS801A: Data Visualization U18CS801B: Block Chain Technologies U18CS801C: Virtual Reality Technologies U18CS801M: MOOCs course	Professional Elective-VI / MOOC-VI: U18CS802A: Deep Learning U18CS802B: Social Network Analysis U18CS802C: Ethical Hacking U18CS802M: MOOCs course	Open Elective-IV/MOOC-VII: U18OE803A: Operations Research U18OE803B: Management Information Systems U18OE803C: Entrepreneurship Development U18OE803D: Forex & Foreign Trade U18OE803M: MOOCs Course
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